

ABSTRACT

A method and apparatus derives an impairment correlation matrix to process signals received at a wireless receiver over multiple paths of a multi-path channel.

The receiver includes first and second impairment correlation estimators for

- 5 estimating first and second impairment correlation matrices based on despread symbols received over multiple paths of a multi-path channel. The receiver then derives the impairment correlation matrix based on the estimated first and second impairment correlation matrices. The receiver may combine traffic despread values to suppress interference using weighting factors calculated based on the derived
- 10 impairment correlation matrix. Further, the receiver may estimate a signal-to-interference ratio based on the derived impairment correlation matrix.